

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

1. (Currently Amended): A mobile terminal having a broadcast program receiving function in addition to a communication function, comprising:

a memory;

a recording unit operable, when playback of a broadcast program being received is disabled by the communication function, to record the broadcast program in the memory as broadcast data including audio data and video data, the communication function having priority over the playback; and

a playback unit operable, when the disabled playback changes to be enabled, to play back the broadcast data.

2. (Previously presented): The mobile terminal of Claim 1, wherein the playback is disabled either on receipt of an incoming call having priority over the playback, or on commencement of a call, and

the disabled playback changes to be enabled when the call ends.

3. (Original): The mobile terminal of Claim 2, wherein the playback unit includes a first playback subunit operable to receive a specification of a playback speed from a user and play back the recorded broadcast data at the specified playback speed.

4. (Original): The mobile terminal of Claim 3, wherein the first playback subunit includes:
a standard playback subunit operable to play back the recorded broadcast data at a standard playback speed equal to an original playback speed of the broadcast program; and

a high-speed playback subunit operable to play back the broadcast data at a playback speed higher than the standard playback speed.

5. (Original): The mobile terminal of Claim 4, wherein
the first playback subunit further includes a special playback subunit operable to perform slow playback and reverse playback during the playback of the recorded broadcast data.

6. (Original): The mobile terminal of Claim 5, wherein
the high-speed playback subunit includes a calculation subunit operable to receive a remaining playback time period from the user, and calculate, based on a predetermined formula, a playback speed indicating a number of frames to be played back per second, and
the high-speed playback subunit reads the broadcast data from the memory, and plays back the read broadcast data at the calculated playback speed.

7. (Original): The mobile terminal of Claim 6, wherein
when another incoming call is received during the playback or when another call starts, the playback unit interrupts the playback,
the calculation subunit recalculates a playback speed based on the predetermined formula, and
an output subunit outputs the recorded broadcast data from an interrupted part, to a monitor at the re-calculated playback speed.

8. (Currently Amended): The mobile terminal of Claim 7, wherein
the predetermined formula used by the calculation subunit is
[formula 1]

$$x_n = x_0 + \frac{1}{t_R} \sum_{i=1}^n (x_0(t_i + p_i - 1) - x_{i-1}p_{i-1}), \text{ where}$$

$$\underline{x_n = x_0 + \frac{1}{t_R} \sum_{i=1}^n (x_0(t_i + P_{i-1}) - x_{i-1}P_{i-1})}, \text{ where}$$

x_n is a reading speed at which the output subunit reads the video data from the memory after an end of a number of n calls [frame/sec],

x_0 is a number of frames to be played back per second at the standard playback speed, i.e. a reading speed at which the video data to be read from the memory [30 fps],

t_R is a specified remaining high-speed playback time period (a chasing playback time period) [sec],

t_i is a duration of an i -th call [sec], and

p_i is a high-speed playback time period after an end of the i -th call [sec].

9. (Currently Amended): The mobile terminal of Claim 6, wherein the predetermined formula used by the calculation subunit is [formula 1]

~~$$x_n = x_0 + \frac{1}{t_R} \sum_{i=1}^n (x_0(t_i + p_{i-1}) - x_{i-1}p_{i-1}), \text{ where}$$~~

$$\underline{x_n = x_0 + \frac{1}{t_R} \sum_{i=1}^n (x_0(t_i + P_{i-1}) - x_{i-1}P_{i-1})}, \text{ where}$$

x_n is a reading speed at which the output subunit reads the video data from the memory after an end of a number of n calls [frame/sec],

x_0 is a number of frames to be played back per second at the standard playback speed, i.e. a reading speed at which the video data to be read from the memory [30 fps],

t_R is a specified remaining high-speed playback time period (a chasing playback time period) [sec],

t_i is a duration of an i-th call [sec], and

p_i is a high-speed playback time period after an end of the i-th call [sec].

10. (Original): The mobile terminal of Claim 4, wherein
the high-speed playback subunit includes a calculation subunit operable to receive a remaining playback time period from the user, and calculate, based on a predetermined formula, a playback speed indicating a number of frames to be played back per second, and

the high-speed playback subunit reads the broadcast data from the memory, and plays back the read broadcast data at the calculated playback speed.

11. (Original): The mobile terminal of Claim 10, wherein
when another incoming call is received during the playback or when another call starts, the playback unit interrupts the playback,
the calculation subunit recalculates a playback speed based on the predetermined formula, and

an output subunit outputs the recorded broadcast data from an interrupted part, to a monitor at the re-calculated playback speed.

12. (Currently Amended): The mobile terminal of Claim 11, wherein
the predetermined formula used by the calculation subunit is
[formula 1]

$$x_n = x_0 + \frac{1}{t_R} \sum_{i=1}^n (x_0(t_i + p_{i-1}) - x_{i-1}p_{i-1}), \text{ where}$$

$$x_n = x_0 + \frac{1}{t_R} \sum_{i=1}^n (x_0(t_i + p_{i-1}) - x_{i-1}p_{i-1}), \text{ where}$$

x_n is a reading speed at which the output subunit reads the video data from the memory after an end of a number of n calls [frame/sec],

x_0 is a number of frames to be played back per second at the standard playback speed, i.e. a reading speed at which the video data to be read from the memory [30 fps],

t_R is a specified remaining high-speed playback time period (a chasing playback time period) [sec],

t_i is a duration of an i -th call [sec], and

p_i is a high-speed playback time period after an end of the i -th call [sec].

13. (Currently Amended): The mobile terminal of Claim 10, wherein the predetermined formula used by the calculation subunit is [formula 1]

$$\cancel{x_n = x_0 + \frac{1}{t_R} \sum_{i=1}^n (x_0(t_i + p_i - 1) - x_{i-1} p_{i-1})}, \text{ where}$$
$$x_n = x_0 + \frac{1}{t_R} \sum_{i=1}^n (x_0(t_i + P_{i-1}) - x_{i-1} P_{i-1})$$

, where

x_n is a reading speed at which the output subunit reads the video data from the memory after an end of a number of n calls [frame/sec],

x_0 is a number of frames to be played back per second at the standard playback speed, i.e. a reading speed at which the video data to be read from the memory [30 fps],

t_R is a specified remaining high-speed playback time period (a chasing playback time period) [sec],

t_i is a duration of an i -th call [sec], and

p_i is a high-speed playback time period after an end of the i -th call [sec].

14. (Original): The mobile terminal of Claim 4, wherein

when broadcasting of the broadcast program being played back ends, the recording unit stops recording the broadcast program.

15. (Previously Presented): The mobile terminal of Claim 4, wherein the playback unit further includes a second playback subunit operable, when the specification of the playback speed is not received, to play back the recorded broadcast data at a default playback speed suitable for hearing audio.

16. (Original): The mobile terminal of Claim 3, wherein the playback unit further includes a second playback subunit operable, when the specification of the playback speed is not received, to play back the recorded broadcast data at a default playback speed suitable for hearing audio.

17. (Original): The mobile terminal of Claim 16, wherein the second playback subunit plays back the recorded broadcast data at a playback speed within a range from 1.0 time to 2.0 times the standard playback speed.

18. (Previously Presented): The mobile terminal of Claim 15, wherein when the playback of the recorded broadcast data by the second playback subunit or the high-speed playback subunit catches up with the real-time broadcast, or when broadcasting of the broadcast program being played back ends during the playback of the recorded broadcast data by the standard playback subunit, the recording unit stops recording the broadcast program.

19. (Currently Amended): A method for recording and playing back a broadcast program in a mobile terminal having a broadcast program receiving function in addition to a communication function, the method comprising the steps of:

recording, when playback of a broadcast program being received is disabled by the communication function, the broadcast program in the memory as broadcast data including audio data and video data[[,]] with the communication function having priority over the playback; and
playing back, when the disabled playback changes to be enabled, the broadcast data.

20. (Currently Amended): A program embodied in a computer usable medium, comprising: for recording and playing back a broadcast program applied to a mobile terminal having a broadcast program receiving function in addition to a communication function, wherein the program causes a computer to

said program is configured to cause a processor of a mobile terminal to execute the steps of:

recording, when playback of a broadcast program being received is disabled by [[the]] a communication function, the broadcast program in [[the]] memory as broadcast data including audio data and video data[[,]] with the communication function having priority over the playback; and

playing back, when the disabled playback changes to be enabled, the broadcast data.

21. (New): A mobile terminal comprising:

a broadcast wave receiving unit operable to receive a broadcast wave;

a playback unit operable to play back broadcast data including audio data and video data, based on the broadcast wave;

a recording unit operable to record the broadcast data when the playback of the broadcast data by the playback unit is interrupted by execution of a function that has priority over the playback;

a control unit operable, when the playback is restarted, to control the playback unit to display, on a display, video data of a predetermined part of the recorded broadcast data and information that urges input of an instruction to play back the recorded broadcast data, wherein

the playback unit is able to play back the recorded broadcast data at a standard playback speed and a playback speed higher than the standard playback speed.